

EXHIBIT A

quinn emanuel trial lawyers | los angeles

865 South Figueroa Street, 10th Floor, Los Angeles, California 90017-2543 | TEL: (213) 443-3000 FAX: (213) 443-3100

June 13, 2012

VIA FEDEX AND EMAIL

3M Company
c/o Felicia Boyd
Barnes & Thornburg LLP
225 South Sixth Street
Suite 2800
Minneapolis, MN 55402-4662

Re: Notice of Intent to Commence Citizen's Suit Under 42 U.S.C. 4911

Dear Felicia:

I am writing with respect to the Noise Reduction Rating ("NRR") of zero displayed on certain 3M "Combat Arms" earplugs. As explained more fully below, we believe that this purported rating of zero is both inaccurate and in violation of the Noise Control Act of 1972.

As you are no doubt aware, the Noise Control Act of 1972, 42 U.S.C. § 4901 *et seq.*, directs the Environmental Protection agency to publish regulations governing noise-producing and noise-reducing products. Those regulations, found at 40 C.F.R. § 211 *et seq.*, mandate that certain noise-reducing products including earplugs display a label that includes the product's NRR.

An NRR is determined by the testing methodologies detailed in the regulations. In general, the value of sound attenuation used in the calculation of a product's NRR is determined with reference to the "Real Ear Method" found in the "Method for the Measurement of Real-Ear Protection of Hearing Protectors and Physical Attenuation of Earmuffs." This standard is approved as the American National Standards Institute Standard (ANSI STD) S3.19-1974. *See*

quinn emanuel urquhart & sullivan, llp

NEW YORK | 51 Madison Avenue, 22nd Floor, New York, New York 10010-1601 | TEL (212) 849-7000 FAX (212) 849-7100

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LONDON | 16 Old Bailey, London EC4M 7EG, United Kingdom | TEL +44 20 7653 2000 FAX +44 20 7653 2100

TOKYO | NBF Hibiya Building, 25F, 1-1-7, Uchisaiwai-cho, Chiyoda-ku, Tokyo 100-0011, Japan | TEL +81 3 5510 1711 FAX +81 3 5510 1712

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MOSCOW | Voentorg Building, 3rd Floor, 10 Vozdvizhenka Street, Moscow 125009, Russia | TEL +7 495 797 3666 FAX +7 495 797 3667

HAMBURG | An der Alster 3, 20099 Hamburg, Germany | TEL +49 40 89728 7000 FAX +49 40 89728 7100

Exhibit A

40 C.F.R. § 211.206-1. The average sound attenuation values are then used to compute the NRR according to the calculations described in the ratings. *See* 40 C.F.R. § 211.207.

3M sells a two-ended Combat Arms earplug that achieves two different sound attenuation levels, depending on which end of the earplug is inserted into a user's ear. On the packaging for its dual-ended earplugs, 3M lists an NRR of zero for when the products are used in the "open" end or "open" position. We have attached a photo of such packaging and a 3M brochure advertising an NRR of zero for your reference.

Moldex believes that 3M's advertised NRR of zero for the "open" end or "open" position of its dual-ended Combat Arms earplugs is grossly inaccurate, and to the extent such inaccuracy was apparent to 3M, intentionally misleading. Moldex has undertaken independent testing of the NRR for such earplugs and the NRR it measured for these products was 9, and not zero. While some variability in testing of this nature is to be expected, variations of this magnitude are suspect, particularly given the marketing advantages of publishing a "0" rating for this purpose. The test report is attached. The fact that these devices are primarily sold for the protection of US military personnel makes this mislabeling especially egregious.

Given the requirements for proper labeling detailed by the EPA and mandated by the Noise Control Act, we ask that you advise us of the basis for the zero rating displayed on the labels of certain of your Combat Arms earplugs. Please understand that depending on your response Moldex may commence a Citizen's Suit under section 4911 of the Noise Control Act.

We will be pleased to discuss this issue further with you.

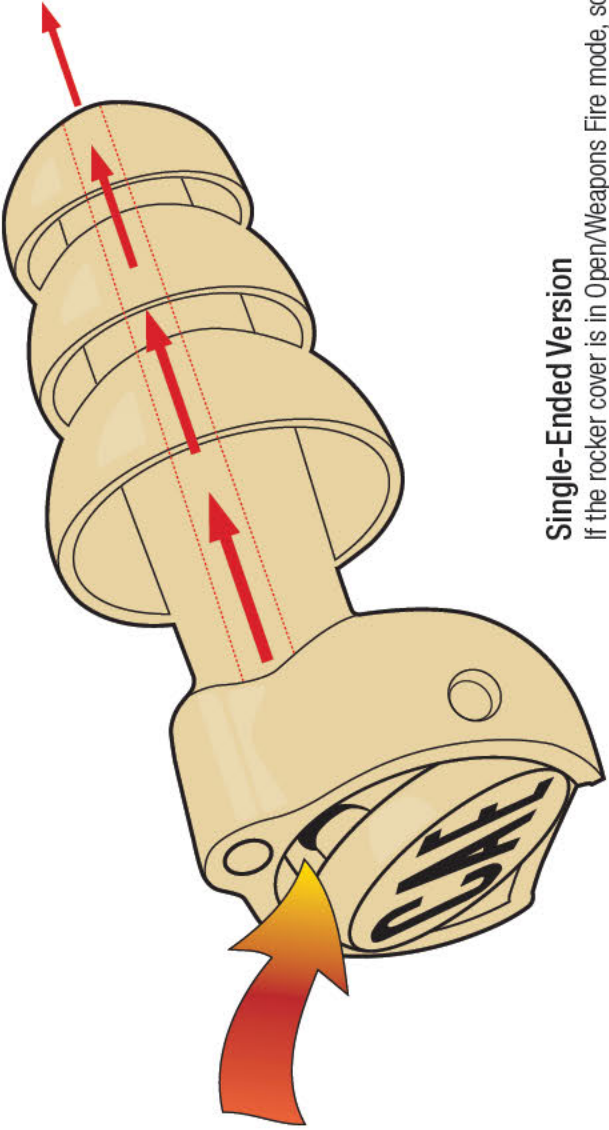
Very truly yours,



Harold A. Barza

CC: Jim Hornstein; Justin Brownstone

Explanation of the Hear-Through™ Protection
Utilized by the Combat Arms™ Earplugs

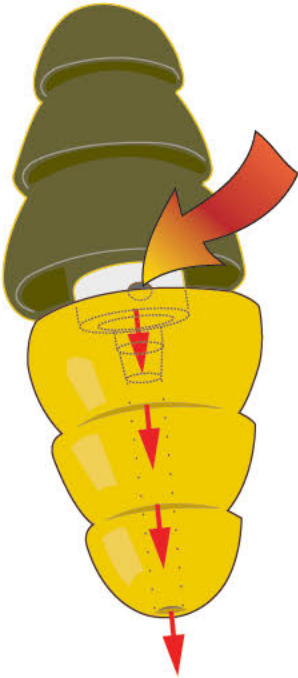


Single-Ended Version

If the rocker cover is in Open/Weapons Fire mode, sound travels into the earplug and down the sound channel to the special filter. The filter allows lower-level sounds to pass with limited interruption but high-level impulsive noises are restricted. The more intense the impulse, the more it is limited.

Dual-Ended Version

Sound travels into the opening at the middle of the earplug and down the sound channel to the special filter. The filter allows lower-level sounds to pass with limited interruption but high-level impulsive noises are restricted. The more intense the impulse, the more it is limited.



Single-Ended Combat Arms™

Product Code	NSN #	Description	Minimum Purchase Info	Case Quantity	Case Dimensions L x W x H (in.)	Case Wt. (lbs.)	NRR (Open)	NRR (Closed)
370-1030	6515-01-576-8837	Single-Ended CAE (small)	1 Case	50 pair	7.725 x 6.50 x 9.25	1.39	7 dB	23 dB
370-1031	6515-01-576-8861	Single-Ended CAE (regular)	1 Case	50 pair	7.725 x 6.50 x 9.25	1.39	7 dB	23 dB
370-1032	6515-01-576-8869	Single-Ended CAE (large)	1 Case	50 pair	7.725 x 6.50 x 9.25	1.41	7 dB	23 dB

ATTENUATION DATA (ANSI S3.19-1974)

Single-Ended Combat Arms - Open/Weapons Fire mode

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA CLASS
Mean Attenuation dB	4.1	4.5	11.0	16.7	24.9	29.8	25.8	16.7	26.5	7	C
Standard Deviation dB	2.7	2.8	3.9	3.2	3.3	2.7	3.3	3.6	3.3		

Single-Ended Combat Arms - Closed/Constant Protection mode

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA CLASS
Mean Attenuation dB	30.3	26.7	32.2	31.9	31.7	38.0	35.1	31.9	37.8	23	BL
Standard Deviation dB	3.4	3.9	3.4	3.8	3.0	4.4	4.8	5.4	4.3		

Dual-Ended Combat Arms™

Product Code	NSN #	Description	Minimum Purchase Info	Case Quantity	Case Dimensions L x W x H (in.)	Case Wt. (lbs.)	NRR (Green End)	NRR (Yellow End)
370-1000	6515-01-486-2710	Bulk CAE Dual-End	1 Case	50 pair	6.75 x 6.50 x 5.25	0.48	22 dB	0 dB
370-1011	Not Applicable	CAE Blister Pack	1 Case	10 blister pks	8.25 x 6.00 x 8.00	1.98	22 dB	0 dB

ATTENUATION DATA (ANSI S3.19-1974)

Dual-Ended Combat Arms - Weapons Fire mode (yellow end)

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA CLASS
Mean Attenuation dB	4.7	4.2	6.0	9.5	16.7	18.6	16.3	16.7	17.2	0	None
Standard Deviation dB	4.0	4.3	5.0	6.7	4.9	5.7	5.8	6.1	6.8		

Dual-Ended Combat Arms - Constant Protection mode (green end)

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA CLASS
Mean Attenuation dB	32.7	31.8	33.0	32.0	34.5	37.3	38.9	43.8	43.3	22	AL
Standard Deviation dB	5.9	6.1	6.5	5.5	4.1	5.3	6.1	6.7	6.9		



Occupational Health & Environmental Safety Division
3M Center
St. Paul, MN 55144-1000
www.3M.com

For More Information:
Sales Assistance: 1-800-328-1667
Technical Assistance: 1-800-243-4630
Website: www.3M.com/OccSafety

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You Protect Us. We Protect You.

Combat Arms Earplugs

Patented Dual-Protection Design

3M™ Combat Arms™ Earplugs (CAE) meet the demanding hearing protection needs of the armed forces. In the Open/Weapons Fire mode, CAE allows greater situational awareness than a common foam earplug yet protects against dangerous peak levels with a filter element that reacts instantaneously to provide increased protection. In the Closed/Constant Protection mode, CAE protects against high-level steady noises like those in tracked vehicles and air transport. The corded version of the Combat Arms utilizes a new finger-touch rocker cover that can be operated while the earplug is in the ear.



Designed for Combat

Designed to Meet the Unique Demands of the Armed Forces

The level-dependent technology used in the earplug (and the earplug itself) has been tested on human subjects and found to be protective at 190 dBp for at least 100 exposures (sufficient to cover the loudest weapons in the military inventory, including shoulder-fired rockets). The earplug sizing options for the single-ended Combat Arms™ accommodate 98% of the adult population's earcanals for proper fit. There is a 100% product testing protocol for impedance characteristics. Combat Arms earplugs do not require batteries and include convenient retention cords. The single-sided versions feature an in-ear switching mechanism for the user to toggle between impulse noise and steady state noise hazards (23 dB NRR in the Constand Protection mode).

Dual-Ended Combat Arms™ Earplugs

- Original patented dual-protection design
- Designed to allow wearer to hear low-level sounds
- High-impulse noise attenuated quickly
- Premolded triple-flange-design fits most earcanals
- Comfortable and reusable
- No batteries required



Uncorded dual-ended version.
Optional cord available.
NSN #: 6515-01-466-2710

You Protect Us. We Protect You.



Single-Ended Combat Arms™ Earplugs

- Deployed in recent Rapid Fielding Initiatives
- Designed to allow wearer to hear low-level sounds
- High-impulse noise attenuated quickly
- Three sizes of triple-flange-design fits most earcanals
- Comfortable and reusable
- No batteries required



Small tip NSN #: 6515-01-576-8837

Large tip NSN #: 6515-01-576-8869



Regular tip NSN #: 6515-01-576-8861

Patented Dual-Protection Design

Open/Weapons Fire Mode: this earplug's patented design gives wearers a better ability to hear low-level sounds critical to mission safety – conversation, footsteps, rifle bolts. When needed, the plug's filter provides attenuation of high level noises like weapons fire and explosions.

Closed/Constant Protection Mode: for attenuation of constant noise (aircraft, armored vehicles, etc.) without hear-through.

FAQ

FREQUENTLY ASKED QUESTIONS ABOUT THE (single-ended) COMBAT ARMS™ EARPLUGS

When is the Combat Arms Earplug (CAE) in the Weapons Fire mode and when is it in the Constant Protection mode?
When the rocker cover exposes the hole, you are in the Weapons Fire mode. In the closed position, the earplug is in the Constant Protection mode.

When do I set the rocker cover for either Open/Weapons Fire or Closed/Constant Protection?
If you are firing a weapon (in training or in combat) and you have to maintain situational awareness and hear verbal communication, set the rocker cover in the Open/Weapons Fire mode. For steady/continuous noise, like in a helicopter or tracked vehicle, set the rocker cover in the Closed/Constant Protection mode. You will be protected from weapons fire in either mode, but only from steady/continuous noise in the Closed mode.

How does the CAE protect my hearing from weapons fire or explosions in the Open/Weapons Fire mode?
The blast energy (impulse noise) must pass through two calibrated holes that filter the more hazardous sound energy. Think of the reduction of this sound energy as sound friction which increases as the impulse noise becomes louder. Meanwhile, lower level sounds like conversation get through the filter relatively unchanged.

How protective is the CAE in the Open/Weapons Fire mode?
When properly inserted, Army studies found the plug protective for impulse noise (weapons fire and explosions) up to 193 dBp. That covers the loudest weapons in the inventory at the firer's position.

Why does weapons fire sound louder in the Open/Weapons Fire mode than the Closed/Constant Protection mode?
More low-frequency sound energy, which is not as hazardous to hearing as high-frequency sound, gets through in the Open position.

How do I determine the correct size?
It is essential that someone with the appropriate training fits you with the correct size. Sizes are color-coded – small (olive drab), medium (tan) and large (brown). An ear gage will provide an approximation of the correct size, but the insertion of a trial earplug is needed to confirm. A recommended sizing distribution for a military population would be 25% small, 60% medium and 15% large. Approximately 1% will require a different size in each ear. There will be a shift toward the smaller sizes for females, African Americans and younger personnel. Conversely, there is a shift toward the larger sizes for Caucasian males.

As long as it stays in my ear, will any size work? What's the problem if the size is a little off?
You want these earplugs to be tough on noise, not your ears. For your own comfort and maximum protection, you want the size that fits best. The correct size also keeps the ear sealed without having to constantly reinsert the plug.

How do I insert the earplug properly and know when it is in correctly?
Reach behind your head and pull your ear out to straighten the earcanal; insert the earplug with your free hand. Gently tug on the earplug for a required tension. Your own voice will also sound low-toned, muffled even more so in the Closed mode. If the plugs do not appear to be blocking any sound, try again to reinsert them. If they still do not appear to be working, have a person trained in earplug fitting recheck you for the correct size. Remember, if you don't have them in correctly, you might as well not have them in at all.

What is the best way to clean the earplug?
Use plain soap and water only, no harsh chemicals or detergents. Ensure the soap is thoroughly rinsed off so no holes are clogged. For best results, separate the plug from the plastic housing and clean the plug separately.

How do I know when to replace the Combat Arms earplug?
Replace if the plug flanges become torn, harden or cannot be cleaned, or if the plastic housing is damaged.

How should I store the earplug?
When not in use, keep in the plastic case provided or tie the cords to the helmet webbing for quick access.

Can I remove the cord?
Yes, it just snaps off. Note: the cord cannot be re-attached.

Are any other modifications to the CAE recommended?
None are recommended. Any other modifications could degrade the ability of the earplug to protect you from hazardous noise and/or interfere with your ability to maintain situational awareness and hear verbal communications.



COMBAT ARMS®

★ EARPLUGS ★

- **YELLOW END - LETS WEARERS HEAR CLEARLY, WITH INSTANT PROTECTION AGAINST WEAPON NOISE**
- **GREEN END - CONSTANT PROTECTION AGAINST CONSTANT NOISE (NRR 22)**

Small, faint text at the bottom right of the page, likely a manufacturer's mark or barcode information.



COMBAT ARMS® MAY BE
PURCHASED IN BULK
(50 PAIR/CASE)
NSN #: 6615-01-466-2710
AEARO® PART #: 370-1000

511 270



COMBAT ARMS®
★ **EARPLUGS** ★

E-A-R® Combat Arms® Earplugs were specifically designed to address the unique hearing protection needs of the armed forces.

The yellow tip end should be inserted only when ambient noise levels are not hazardous and the wearer wants Hear-Through® capability with instant protection from impulse noises (i.e., weapons fire or explosive devices). This earplug tip (yellow) incorporates a patented technology designed for, tested and used by the US military to allow clear hearing during non-hazardous noise and instant protection against impulse noises such as weapons fire. Noise reduction increases with sound level for impulsive noise such as weapons fire above 110 dB. Estimated attenuation ranges from approximately 0 to 22 dB.

The green tip end should be inserted when continuous hazardous noise is present and if it is determined that the attenuation reduces the hazardous noise to a safe level as determined by a qualified professional. This earplug tip (green) provides continuous noise reduction to ambient noises such as aircraft, armored vehicles or machinery.

GREEN STEADY STATE END

Noise Reduction Rating	22 Decibels
(When used as directed)	
THE RANGE OF NOISE REDUCTION RATINGS FOR EXISTING HEARING PROTECTORS IS APPROXIMATELY 0 TO 30 (HIGHER NUMBERS DENOTE GREATER EFFECTIVENESS)	
Aearo Technologies Indianapolis, IN	Model: Combat Arms
Federal law prohibits removal of this label prior to purchase	EPA LABEL REQUIRED BY U.S. E.P.A. REGULATION

YELLOW LEVEL DEPENDENT END

Noise Reduction Rating	0 Decibels
(When used as directed)	
THE RANGE OF NOISE REDUCTION RATINGS FOR EXISTING HEARING PROTECTORS IS APPROXIMATELY 0 TO 30 (HIGHER NUMBERS DENOTE GREATER EFFECTIVENESS)	
Aearo Technologies Indianapolis, IN	Model: Combat Arms
Federal law prohibits removal of this label	EPA LABEL REQUIRED BY U.S. E.P.A. REGULATION

(1) 2TV54



Aearo Technologies • 8001 V
ne (800) 225-9038 Fax

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Hear-Through® are traden
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Michael & Associates, Inc.

2766 W. College Ave Suite 1
State College, PA 16801

814-234-7042 phone

814-235-1381 fax

Email: Kevin@michaelassociates.com

URL: www.michaelassociates.com

March 28, 2012 Hearing Protective Device Test Report Number Q2558A Revision 0

Moldex Metric
Attn: Bern Mishkin
10111 W. Jefferson Blvd.
Culver City, CA 90232Date of Sample Receipt: 3/23/12
Date of Sample Test: 3/23/12-3/27/12

Attenuation measurements have been performed according to the American National Standards Institute (ANSI) Specifications, ANSI S3.19-1974, using the experimenter-fit protocol, on the 3M / Aearo Combat Arms dual-ended plug, in the level-dependent mode (test ID Q2558A). The specified threshold measurement data were obtained using ten normal-hearing listeners, six male and four female. These listeners were selected from a standby group of about 35 volunteers, mostly graduate students, who regularly serve as listeners for measurements of this kind.

The measurements were made in a room designed for this purpose. All acoustic characteristics of the room meet the requirements outlined in ANSI S3.19-1974. The ambient noise levels in this room are below the limits specified in ANSI S3.19-1974, and open ear thresholds are used on a continuing basis to monitor the background noise levels. An automatic recording attenuator was used to record both open and occluded ear thresholds.

Each of ten subjects was tested three times at each of nine test frequencies. The attached Tables show grand mean attenuation values in decibels (dB) for each test signal along with group attenuation values. Standard deviations (S.D.) for the 30 different attenuation determinations for each test signal are also given. The results presented in this report pertain to the samples tested only.

Michael & Associates is accredited by the National Institute of Standards and Technology (NIST) National Laboratory Accreditation Program (NVLAP) for tests performed according to ANSI S3.19-1974, ANSI S12.6-2008 and AS/NZ S1270:2002. These accreditation criteria encompass the requirements of international standard ISO Guide 17025. This report may only be reproduced or transmitted electronically in its' entirety. This report shall not be used to claim product endorsement by NIST, NVLAP or by any agency of the U.S. Government. All measurement equipment are calibrated with instrumentation traceable to the NIST.

Use these laboratory-derived attenuation data for comparison purposes only. The amount of protection afforded in field use is often significantly lower depending on how the protectors are fitted and worn.

A handwritten signature in black ink, appearing to read "Kevin Michael".

Kevin Michael, Ph.D.
President

3/28/12

Date

Individual and Summary Attenuation Data for
Hearing Protective Devices

Test Method: ANSI S3.19-1974

Position: Insert

Manufacturer: Aearo (sponsored by Moldex)

Date: 3/28/12

Model: Combat Arms (open)

Test ID # Q2558A

FREQUENCY IN HERTZ

SUBJECT	125	250	500	1000	2000	3150	4000	6300	8000
1	7	6	11	19	28	21	20	18	24
	9	7	13	16	26	23	18	14	25
	6	7	10	16	25	23	18	15	24
	0	3	8	20	27	24	17	12	26
2	0	4	11	16	27	30	23	14	23
	1	4	11	21	27	29	21	14	23
	11	5	15	19	26	32	24	17	27
	7	6	14	19	27	31	23	17	27
3	8	5	13	16	27	32	27	15	24
	7	6	11	18	27	28	20	16	23
	4	5	10	15	26	26	20	17	25
	5	5	13	14	25	27	16	14	22
4	8	9	15	21	30	29	35	18	26
	10	6	17	22	34	29	33	18	26
	8	5	14	19	31	29	36	18	22
	7	5	9	16	27	28	20	16	22
5	4	3	10	19	29	30	19	16	17
	6	3	11	14	30	27	21	17	20
	4	3	11	22	18	27	21	23	30
	2	6	13	20	20	27	24	23	30
6	7	5	10	22	17	26	25	32	34
	1	5	8	19	21	25	23	25	30
	2	4	11	19	24	24	22	25	29
	2	3	8	19	23	23	20	25	30
7	5	3	6	20	29	33	25	15	17
	3	4	8	19	31	33	26	17	18
	5	3	7	20	30	31	24	16	18
	9	10	14	19	24	25	26	23	34
8	4	13	15	16	29	26	28	18	25
	6	11	17	17	25	28	25	17	28
MEANS	5.3	5.5	11.4	18.3	26.4	27.5	23.4	18.2	24.9
STD. DEV.	3.0	2.5	3.0	2.2	3.8	3.3	4.8	4.4	4.4

NRR = 9 dB

Use these laboratory-derived data for comparison purposes only. The amount of protection afforded in field use is often significantly lower depending on how the protectors are fitted and worn.

Manufacturer: Aearo (sponsored by Moldex) Date: 3/28/12
 Model: Combat Arms (open) Test ID: Q2558A
 Position: Insert

Measurements were made according to American National Standards Institute Specifications ANSI S3.19-1974.

Center Frequency in Hz	Mean Attenuation in dB	Group Attenuation in dB	Standard Deviation in dB
125	5.3	10.8	3.0
250	5.5		2.5
500	11.4		3.0
1000	18.3		2.2
2000	26.4	107.0	3.8
3150	27.5		3.3
4000	23.4		4.8
6300	18.2	43.1	4.4
8000	24.9		4.4

Test Item: Q2558A



These data were obtained through measurements made at the laboratories of Michael & Associates, Inc., State College, PA , USA. Michael & Associates, Inc., is accredited to test to ANSI S3.19-1974, ANSI S12.6-2008 and AS/NZS 1270:2002 by the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP).


 Kevin L. Michael, Ph.D.
 President


 Date

Michael & Associates, Inc.

2766 W. College Ave Suite 1
State College, PA 16801

814-234-7042 phone

814-235-1381 fax

Email: Kevin@michaelassociates.com

URL: www.michaelassociates.com

March 28, 2012 Hearing Protective Device Test Report Number Q2559A Revision 0

Moldex Metric
Attn: Bern Mishkin
10111 W. Jefferson Blvd.
Culver City, CA 90232Date of Sample Receipt: 3/23/12
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Attenuation measurements have been performed according to the American National Standards Institute (ANSI) Specifications, ANSI S3.19-1974, using the experimenter-fit protocol, on the 3M / Acaro Combat Arms dual-ended plug, in the steady-state mode (test ID Q2559A). The specified threshold measurement data were obtained using ten normal-hearing listeners, six male and four female. These listeners were selected from a standby group of about 35 volunteers, mostly graduate students, who regularly serve as listeners for measurements of this kind.

The measurements were made in a room designed for this purpose. All acoustic characteristics of the room meet the requirements outlined in ANSI S3.19-1974. The ambient noise levels in this room are below the limits specified in ANSI S3.19-1974, and open ear thresholds are used on a continuing basis to monitor the background noise levels. An automatic recording attenuator was used to record both open and occluded ear thresholds.

Each of ten subjects was tested three times at each of nine test frequencies. The attached Tables show grand mean attenuation values in decibels (dB) for each test signal along with group attenuation values. Standard deviations (S.D.) for the 30 different attenuation determinations for each test signal are also given. The results presented in this report pertain to the samples tested only.

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Use these laboratory-derived attenuation data for comparison purposes only. The amount of protection afforded in field use is often significantly lower depending on how the protectors are fitted and worn.



Kevin Michael, Ph.D.
President3/28/12

Date

Individual and Summary Attenuation Data for
Hearing Protective Devices

Test Method: ANSI S3.19-1974

Position: Insert

Manufacturer: Aearo (sponsored by Moldex)

Date: 3/28/12

Model: Combat Arms (closed)

Test ID #: Q2559A

FREQUENCY IN HERTZ

SUBJECT	125	250	500	1000	2000	3150	4000	6300	8000
1	33	25	33	33	42	43	38	49	43
	32	26	33	38	48	43	44	49	45
	38	33	39	38	47	42	41	50	43
	31	29	36	36	38	41	40	44	48
2	33	35	37	38	41	44	45	45	48
	31	32	33	33	40	44	43	44	48
	35	27	34	33	34	41	43	46	50
	32	25	34	26	35	39	47	45	48
3	32	25	33	27	35	41	43	45	49
	35	25	26	25	36	47	50	43	47
	26	21	24	25	36	48	53	45	46
	26	22	23	24	36	51	55	45	48
4	29	21	28	25	37	41	47	37	45
	28	21	26	26	36	37	50	38	46
	28	23	28	24	38	40	43	36	46
	29	28	31	26	26	38	36	36	46
5	30	26	28	27	37	37	37	35	44
	30	28	28	26	28	36	32	34	43
	31	25	32	33	34	37	37	45	48
	35	28	31	34	35	35	41	43	42
6	36	36	37	32	28	36	41	42	44
	26	28	33	31	33	38	35	42	47
	28	27	31	30	30	36	32	40	44
	26	25	29	30	27	37	33	39	43
7	27	25	29	28	35	44	48	45	42
	29	23	28	26	34	42	49	48	42
	31	25	28	26	30	43	47	47	44
	31	29	32	33	35	39	40	42	48
8	34	27	31	30	35	37	36	42	46
	30	25	30	28	36	38	38	41	49
MEANS	30.7	26.5	30.7	29.8	35.4	40.4	42.1	42.8	45.7
STD. DEV.	3.3	3.7	3.9	4.3	5.0	3.9	6.1	4.3	2.4

NRR = 23 dB

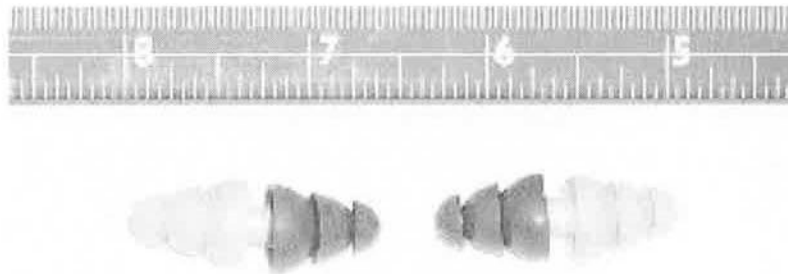
Use these laboratory-derived data for comparison purposes only. The amount of protection afforded in field use is often significantly lower depending on how the protectors are fitted and worn.

Manufacturer: Aearo (sponsored by Moldex) Date: 3/28/12
 Model: Combat Arms (closed) Test ID: Q2559A
 Position: Insert

Measurements were made according to American National Standards Institute Specifications ANSI S3.19-1974.

Center Frequency in Hz	Mean Attenuation in dB	Group Attenuation in dB	Standard Deviation in dB
125	30.7	57.2	3.3
250	26.5		3.7
500	30.7		3.9
1000	29.8		4.3
2000	35.4	178.4	5.0
3150	40.4		3.9
4000	42.1		6.1
6300	42.8	88.4	4.3
8000	45.7		2.4

Test Item: Q2559A



These data were obtained through measurements made at the laboratories of Michael & Associates, Inc., State College, PA , USA. Michael & Associates, Inc., is accredited to test to ANSI S3.19-1974, ANSI S12.6-2008 and AS/NZS 1270:2002 by the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP).

Kevin L. Michael
 Kevin L. Michael, Ph.D.
 President

3/28/12
 Date

Michael & Associates, Inc.

246 Woodland Drive
State College, PA 16803

814-234-7042 phone

814-235-1381 fax

Email: Kevin@michaellaneous.com

URL: www.michaellaneous.com

June 16, 2009 Hearing Protective Device Test Report Number Q1930A Revision 0

Moldex Metric
Attn: Bernard Mishkin
10111 W. Jefferson Blvd.
Culver City, CA 90232Date of Sample Receipt: 6/11/09
Date of Sample Test: 6/12/09-6/15/09


Attenuation measurements have been performed according to the American National Standards Institute (ANSI) Specifications, ANSI S3.19-1974, using the experimenter-fit protocol, on the Aeero Combat Arms Single Sided (closed) insert-type hearing protector (test ID Q1930A), as submitted by Moldex. The specified threshold measurement data were obtained using ten normal-hearing listeners, five male and five female. These listeners were selected from a standby group of about 35 volunteers, mostly graduate students, who regularly serve as listeners for measurements of this kind.

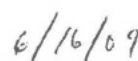
The measurements were made in a room designed for this purpose. All acoustic characteristics of the room meet the requirements outlined in ANSI S3.19-1974. The ambient noise levels in this room are below the limits specified in ANSI S3.19-1974, and open ear thresholds are used on a continuing basis to monitor the background noise levels. An automatic recording attenuator was used to record both open and occluded ear thresholds.

Each of ten subjects was tested three times at each of nine test frequencies. The attached Tables show grand mean attenuation values in decibels (dB) for each test signal along with group attenuation values. Standard deviations (S.D.) for the 30 different attenuation determinations for each test signal are also given. The results presented in this report pertain to the samples tested only.

Michael & Associates is accredited by the National Institute of Standards and Technology (NIST) National Laboratory Accreditation Program (NVLAP) for tests performed according to ANSI S3.19-1974, ANSI S12.6-1997 and AS/NZ S1270:2002. These accreditation criteria encompass the requirements of international standard ISO Guide 17025. This report may only be reproduced or transmitted electronically in its' entirety. This report shall not be used to claim product endorsement by NIST, NVLAP or by any agency of the U.S. Government. All measurement equipment are calibrated with instrumentation traceable to the NIST.

Use these laboratory-derived attenuation data for comparison purposes only. The amount of protection afforded in field use is often significantly lower depending on how the protectors are fitted and worn.



Kevin Michael, Ph.D.
President

Date

Individual and Summary Attenuation Data for
Hearing Protective Devices

Test Method: ANSI S3.19-1974

Position: Insert

Manufacturer: Moldex

Date: 6/16/09

Model: Aearo Combat Arms Single Sided (closed)

Test ID # Q1930A

FREQUENCY IN HERTZ

SUBJECT	125	250	500	1000	2000	3150	4000	6300	8000
1	33	29	35	29	35	42	41	34	33
	29	26	32	33	32	39	40	34	34
	34	29	32	35	31	40	42	34	31
2	23	30	33	28	28	32	36	36	37
	30	33	31	30	31	35	37	37	36
	32	34	35	34	31	37	37	37	36
3	30	30	35	32	35	47	40	34	36
	32	30	35	32	31	45	39	34	39
	36	27	37	29	35	50	43	37	37
4	24	25	35	30	33	34	39	39	41
	27	26	32	36	35	37	36	36	43
	27	24	30	37	38	37	37	37	39
5	32	33	38	35	31	45	39	34	33
	31	32	35	34	29	46	42	38	30
	29	32	34	35	31	44	44	31	30
6	19	21	20	24	34	35	32	28	34
	18	22	20	31	34	35	34	29	30
	22	31	26	27	34	37	32	31	31
7	22	28	31	35	36	35	31	38	37
	19	22	25	31	33	38	32	40	37
	19	23	28	38	40	36	31	39	37
8	22	21	34	32	34	41	41	41	40
	28	26	33	30	35	40	39	37	37
	28	20	27	29	35	45	40	37	37
9	18	20	26	28	33	33	31	33	33
	29	29	30	31	34	34	32	27	32
	25	28	29	25	28	31	29	27	36
10	25	24	26	22	35	37	36	36	37
	21	22	26	26	29	33	33	33	34
	20	22	22	25	37	40	35	34	33
MEANS	26.1	26.6	30.3	30.7	33.2	38.6	36.6	34.7	35.4
STD. DEV.	5.2	4.2	5.0	4.0	2.9	5.0	4.1	3.7	3.4

NRR = 22 dB

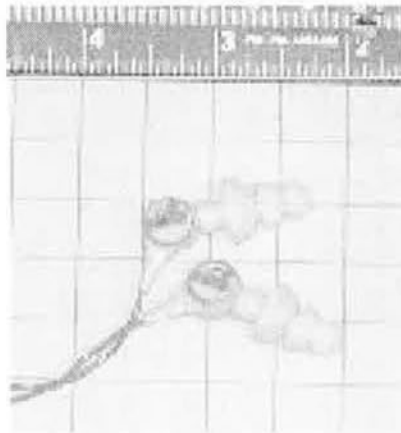
Use these laboratory-derived data for comparison purposes only. The amount of protection afforded in field use is often significantly lower depending on how the protectors are fitted and worn.

Manufacturer: Moldex Date: 6/16/09
 Model: Aearo Combat Arms Single Sided (close) Test ID: Q1930A
 Position: Insert

Measurements were made according to American National Standards Institute Specifications ANSI S3.19-1974.

Center Frequency in Hz	Mean Attenuation in dB	Group Attenuation in dB	Standard Deviation in dB
125	26.1	52.7	5.2
250	26.6		4.2
500	30.3		5.0
1000	30.7		4.0
2000	33.2	169.4	2.9
3150	38.6		5.0
4000	36.6		4.1
6300	34.7	70.1	3.7
8000	35.4		3.4

Test Item: Q1930A



These data were obtained through measurements made at the laboratories of Michael & Associates, Inc., State College, PA , USA. Michael & Associates, Inc., is accredited to test to ANSI S3.19-1974, ANSI S12.6-1997 and AS/NZS 1270:2002 by the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP).

Kevin L. Michael
 Kevin L. Michael, Ph.D.
 President

6/16/09
 Date

Michael & Associates, Inc.

246 Woodland Drive
State College, PA 16803814-234-7042 phone
814-235-1381 faxEmail: Kevin@michaelassociates.com
URL: www.michaelassociates.com

June 16, 2009 Hearing Protective Device Test Report Number Q1929A Revision 0

Moldex Metric
Attn: Bernard Mishkin
10111 W. Jefferson Blvd.
Culver City, CA 90232Date of Sample Receipt: 6/11/09
Date of Sample Test: 6/12/09-6/15/09

Attenuation measurements have been performed according to the American National Standards Institute (ANSI) Specifications, ANSI S3.19-1974, using the experimenter-fit protocol, on the Aearo Combat Arms Single Sided (open) insert-type hearing protector (test ID Q1929A), as submitted by Moldex. The specified threshold measurement data were obtained using ten normal-hearing listeners, five male and five female. These listeners were selected from a standby group of about 35 volunteers, mostly graduate students, who regularly serve as listeners for measurements of this kind.

The measurements were made in a room designed for this purpose. All acoustic characteristics of the room meet the requirements outlined in ANSI S3.19-1974. The ambient noise levels in this room are below the limits specified in ANSI S3.19-1974, and open ear thresholds are used on a continuing basis to monitor the background noise levels. An automatic recording attenuator was used to record both open and occluded ear thresholds.

Each of ten subjects was tested three times at each of nine test frequencies. The attached Tables show grand mean attenuation values in decibels (dB) for each test signal along with group attenuation values. Standard deviations (S.D.) for the 30 different attenuation determinations for each test signal are also given. The results presented in this report pertain to the samples tested only.

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Use these laboratory-derived attenuation data for comparison purposes only. The amount of protection afforded in field use is often significantly lower depending on how the protectors are fitted and worn.

A handwritten signature in black ink, appearing to read "Kevin Michael".

Kevin Michael, Ph.D.
President

6/16/09

Date

Hearing Protective Devices

Test Method: ANSI S3.19-1974

Position: Insert

Manufacturer Moldex

Date: 6/16/09

Model: Aearo Combat Arms Single Sided (open)

Test ID # Q1929A

FREQUENCY IN HERTZ

SUBJECT	125	250	500	1000	2000	3150	4000	6300	8000
1	8	4	7	12	22	30	22	25	24
	1	4	7	14	21	25	25	27	25
	3	2	5	13	20	29	25	26	25
	4	6	7	17	22	30	23	19	28
2	10	9	12	13	22	30	24	16	27
	8	14	13	16	25	34	27	20	26
	4	7	10	21	24	34	31	24	29
3	7	7	12	19	23	26	26	25	30
	4	6	13	20	23	28	29	28	31
	6	5	6	16	29	29	29	27	24
4	9	4	8	17	30	29	27	24	24
	7	5	7	19	27	32	28	27	27
	3	8	16	25	24	32	28	29	25
5	5	4	14	26	23	34	32	31	22
	6	8	15	24	26	32	30	32	24
	2	4	11	24	30	32	28	23	14
6	4	8	5	24	28	29	28	21	12
	2	9	4	14	26	30	25	21	15
	9	9	16	25	34	32	30	31	28
7	10	12	13	26	33	32	28	31	29
	3	8	15	25	31	29	29	28	27
	6	8	15	23	26	36	36	32	31
8	9	13	17	22	26	33	33	31	36
	12	13	16	20	23	32	32	34	31
	6	12	16	22	30	27	25	27	21
9	7	11	18	23	30	29	31	30	24
	9	17	20	24	29	30	31	30	26
	3	3	9	24	36	31	22	23	22
10	1	8	12	16	33	31	29	25	31
	3	9	14	18	34	31	27	25	24
MEANS	5.7	7.8	11.6	20.0	26.9	30.6	27.9	26.3	25.3
STD. DEV.	3.0	3.7	4.4	4.3	4.3	2.4	3.3	4.2	5.3

NRR = 8 dB

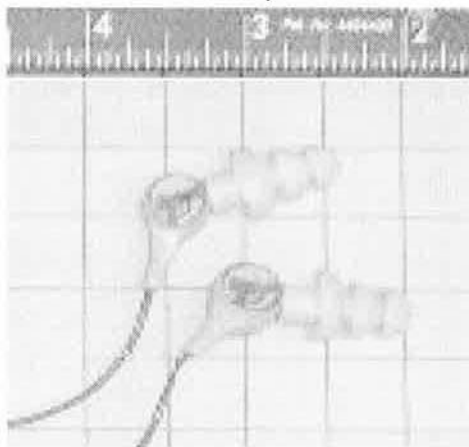
Use these laboratory-derived data for comparison purposes only. The amount of protection afforded in field use is often significantly lower depending on how the protectors are fitted and worn.

Manufacturer: Moldex Date: 6/16/09
 Model: Aearo Combat Arms Single Sided (oper Test ID: Q1929A
 Position: Insert


Measurements were made according to American National Standards Institute Specifications ANSI S3.19-1974.

Center Frequency in Hz	Mean Attenuation in dB	Group Attenuation in dB	Standard Deviation in dB
125	5.7	13.5	3.0
250	7.8		3.7
500	11.6		4.4
1000	20.0		4.3
2000	26.9	117.1	4.3
3150	30.6		2.4
4000	27.9		3.3
6300	26.3	51.5	4.2
8000	25.3		5.3

Test Item: Q1929A



These data were obtained through measurements made at the laboratories of Michael & Associates, Inc., State College, PA, USA. Michael & Associates, Inc., is accredited to test to ANSI S3.19-1974, ANSI S12.6-1997 and AS/NZS 1270:2002 by the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP).


 Kevin L. Michael, Ph.D.
 President


 Date